

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (original): A fuel system, comprising:  
a fuel injector configured to receive fuel and to transmit fuel in droplet form;  
a reaction region to receive fuel from the fuel injector;  
a reaction rod positioned in the reaction region, the reaction rod having a convex end to receive the fuel from the fuel injector, the reaction rod further having a concave end opposite the convex end.

2.(original): The system of claim 1, wherein the reaction region comprises an inner region of a reaction tube.

3.(original): The system of claim 2, wherein the reaction tube comprises a magnetically polarizable material.

4.(original): The system of claim 1, wherein the reaction rod comprises a magnetically polarizable material.

5.(original): The system of claim 4, wherein the material comprises steel.

6.(original): The system of claim 1, further comprising a vacuum generator in communication with the reaction region, the vacuum generator configured to reduce a pressure of the reaction region with respect to a region exterior to the reaction region.

7.(currently amended): The system of claim 6, wherein the vacuum generator ~~comprises~~ comprises a venturi.

8.(original): The system of claim 6, wherein the vacuum generator comprises a turbopump.

9.(original): The system of claim 1, further including an engine configured to be powered using fuel from the reaction region.

10.(original): The system of claim 9, further including a fuel transport tube positioned between the engine and the reaction region, the fuel transport tube configured to transport fuel from the reaction region to the engine.

11.(original): The system of claim 10, wherein the fuel transport tube comprises a non-magnetic material.

12.(original): The system of claim 11, wherein the non-magnetic material comprises copper.

13.(original): The system of claim 9, further including an exhaust pipe configured to transport exhaust from the engine to an exterior region.

14.(original): The system of claim 13, wherein the reaction region comprises a reaction tube, the reaction tube positioned at least partially within at least a portion of the exhaust pipe.

15.(original): An engine system, comprising:  
a fuel storage region;  
a fuel injector configured to receive fuel from the fuel storage region and to transmit fuel in droplet form;  
a reaction region to receive fuel from the fuel injector;  
and

a reaction rod positioned in the reaction region, the reaction rod having a convex end to receive the fuel from the

fuel injector, the reaction rod further having a concave end opposite the convex end.

16.(original): The system of claim 15, further including an engine in communication with the reaction region.

17.(original): The system of claim 16, wherein the engine includes one or more cylinders.

18.(original): The system of claim 16, wherein the engine comprises an engine selected from the group consisting of a turbine engine, a diesel engine, a steam engine, and a gas engine.

19.(original): The system of claim 17, further comprising a vacuum generator in communication with the reaction region.

20.(original): The system of claim 19, wherein the vacuum generator is selected from the group consisting of a venturi and a vacuum pump.

21.(original): The system of claim 17, wherein the engine system is included in a vehicle.

22.(original): A fuel system, comprising:

- a fuel injector configured to receive fuel and to transmit fuel in droplet form;
- a reaction region to receive fuel from the fuel injector;
- a reaction rod positioned in the reaction region, the reaction rod having a first fuel receiving end and a second end opposite the first fuel receiving end;
- a first stop positioned at least partially in the reaction region proximate to the first fuel receiving end of the reaction rod; and
- a second stop positioned at least partially in the reaction region proximate to the second end of the reaction rod.

23.(original): The system of claim 22, wherein the first fuel receiving end of the reaction rod has a convex shape.

24.(original): The system of claim 23, wherein the second end of the reaction rod has a concave shape.

25.(original): A method of providing fuel to an engine, comprising:

- generating fuel droplets from a fuel source;

transmitting the fuel droplets to a reaction region proximate to a reaction rod;

generating energized fuel by transmitting the fuel droplets past a reaction rod, wherein the reaction rod has a first convex fuel receiving end and a second concave transmitting end; and transmitting the energized fuel to the engine.

26.(original): The method of claim 25, wherein generating energized fuel comprises electrically transforming the fuel droplets.

27.(original): The method of claim 25, further comprising reducing the pressure in the reaction region.

28.(original): The method of claim 25, wherein the reaction rod comprises a magnetically polarizable material.

29.(original): The method of claim 25, wherein the reaction region is enclosed by a reaction tube.

30.(original): The method of claim 29, wherein the reaction tube comprises a magnetically polarizable material.